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| 09/533,944 | 03/23/2000 | Atsushi Inoue | 040301/0595 | 9999 |

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| ART UNIT | PAPER NUMBER |
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| 2153 | |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. 09/533,944 | Applicant(s) INOUE ET AL. | |
|---|---|---|---|
| | Examiner Yasin M Barqadle | Art Unit 2153 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

**DETAILED ACTION**

1. Claims 1-25 are presented for examination.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,3,7,9-11,16-20,22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Marlevi et al US (5572221).

3. As per claims 1 and 11, Marlevi et al teach an information delivery system for delivering WWW information (data files) provided by information servers on Internet to mobile computers connected to the Internet through a wireless network, comprising: a plurality of cache servers (distributed file Servers) provided in association with the wireless network and configured to be capable of caching WWW information provided by the information servers [communication network having a plurality of servers, the servers being positioned in respective geographical areas and

organized in a distributed file system and mobile device that communicate with the servers Col. 2, lines 59-67 and Abstract. See also Col. 4, lines 57-67 to Col. 5, lines 1-2]; and a management unit (Fig. 4, MMP) configured to manage caching state of the cache servers, by receiving a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer, selecting one or more cache servers located nearby the mobile computer according to the message, and controlling said one or more cache servers to cache selected WWW information selected for the mobile computer, so as to enable faster accesses to the selected WWW information by the mobile computer [Col. 4, lines 57-67 and Col. 5, lines 1-2. See also, col. 7, lines 17-34 and Col. 15, lines 20-65].

4. As per claim 3, Marlevi et al teach a system wherein the selected WWW information is selected according to information related to an information provider of the selected WWW information [col. 6, lines 17-28].

5. As per claim 7, Marlevi et al teach a system wherein either the mobile computer or the management unit predicts another one or more cache servers to be selected when a need to change cache servers nearby the mobile computer due to moving of the mobile computer is predicted to arise, and the management unit controls said another one or more cache servers to cache the selected WWW information according to a result of prediction [Col. 4, lines

57-67 and Col. 5, lines 1-2. See also, col. 7, lines 17-34 and Col. 15, lines 20-65].

6. As per claim 9, Marlevi et al teach a system wherein the management unit changes the selected WWW information cached in said one or more cache servers according to at least one of a likelihood by which each WWW information is expected to be accessed and a priority level determined for each WWW information, when a cache state of any one of said one or more cache servers reaches to a prescribed criterion [Col. 4, lines 57-67 and Col. 5, lines 1-2. See also, col. 7, lines 17-34 and Col. 15, lines 20-65].

7. As per claim 10, Marlevi et al teach a system wherein the wireless network comprises a first network for providing data transmission at relatively low transfer rate, and a second network for providing data transmission at relatively high transfer rate at least in a downlink direction, and the management unit receives the message from the mobile computer via the first network, and the cache servers transfer the selected WWW information to the mobile computer via the second network [Col. 2, lines 59-67 and Col. 6, line 16-43].

8. As per claims 16 and 17, Marlevi et al teach a method for delivering WWW information (data files) provided by information servers on Internet to mobile computers connected to the Internet

through a wireless network, using a plurality of cache servers provided in association with the wireless network and configured to be capable of caching WWW information provided by the information servers, the method comprising the steps of:
receiving a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer;
selecting one or more cache servers located nearby the mobile computer according to the message[Col. 7, lines 7-28]; and
controlling said one or more cache servers to cache selected WWW information selected for the mobile computer, so as to enable faster accesses to the selected WWW information by the mobile computer [Col. 2, lines 59-67 and Abstract. See also Col. 4, lines 57-67].

9. As per claim 18 and 19, Marlevi et al teach a management device for use in an information delivery system for delivering WWW information provided by information servers on Internet to mobile computers connected to the Internet through a wireless network, using a plurality of cache servers provided in association with the wireless network and configured to be capable of caching WWW information provided by the information servers, the management device comprising:
a first unit configured to receive a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer [Col. 5, lines 57-67 and Col. 6, lines 1-43 and abstract];

a second unit configured to select one or more cache servers located nearby the mobile computer according to the message [Col. 4, lines 57-67 and Col. 4, lines 1-2. See also Col. 7, lines 7-28]; and

a third unit configured to control said one or more cache servers to cache selected WWW information selected for the mobile computer, so as to enable faster accesses to the selected WWW information by the mobile computer [Col. 2, lines 59-67 and Abstract. See also Col. 4, lines 57-67].

10. As per claim 20, Marlevi et al teach a mobile computer device for use in an information delivery system for delivering WWW information provided by information servers on Internet to mobile computers connected to the Internet through a wireless network, using a plurality of cache servers provided in association with the wireless network and configured to be capable of caching WWW information provided by the information servers, the mobile computer device comprising:

a first unit configured to maintain a user ID of a user of the mobile computer device [inherently, mobile devices are identified by their registered user ID Col. 6, lines 16-29];

a second unit configured to obtain a connected location information regarding a connection location of the mobile computer device in the wireless network Col. 5, lines 57-67 and Col. 6, lines 11-29] ; and

a third unit configured to notify a message containing at least

the user ID and the connection location information, to a management device for managing caching state of the cache servers, such that the message causes the management device to select one or more cache servers located nearby the mobile computer device according to the message and control said one or more cache servers to cache selected WWW information selected for the mobile computer device, so as to enable faster accesses to the selected WWW information by the mobile computer device [Col. 4, lines 57-67 and Col. 5, lines 1-2. See also, col. 7, lines 17-34 and Col. 15, lines 20-65].

11. As per claims 22 and 23, Marlevi et al teach a cache server device for use in an information delivery system for delivering WWW information provided by information servers on Internet to mobile computers connected to the Internet through a wireless network, using a plurality of cache servers provided in association with the wireless network, the cache server device comprising:

a cache memory configured to cache WWW information provided by the information servers [communicating device accesses application files and data files stored in the servers Col. 2, lines 59-67 and Col.7, lines 17-28]; and

a caching processing unit configured to acquire selected WWW information selected for a mobile computer from the information servers and store the selected WWW information into the cache memory, when the cache server device is included in one or more

cache servers located nearby the mobile computer according to a message indicating at least a connection location of the mobile computer in the wireless network which is sent by the mobile computer, so as to enable faster accesses to the selected WWW information by the mobile computer [Col. 2, lines 59-67 and Abstract. See also Col. 4, lines 57-67].

12. As per claims 24, and 25, Marlevi et al teach a method for providing a caching service with respect to a specific user in a system for delivering WWW information provided by information servers on Internet to mobile computers connected to the Internet through a wireless network, the method comprising the steps of: registering the specific user as a premier user in an information delivery system having a plurality of cache servers provided in association with the wireless network and configured to be capable of caching WWW information provided by the information servers [Col. 15, lines 57 -67 and Col. 16, lines 1-46]; and upon receiving a message indicating at least a connected location of a mobile computer in the wireless network from the mobile computer operated by the specific user, selecting one or more cache servers located nearby the mobile computer according to the message and controlling said one or more cache servers to cache selected WWW information selected for the specific user, so as to enable faster accesses to the selected WWW information by the mobile computer [Col. 15, lines 57 -67 and Col. 16, lines 1-46] and Abstract].

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtai ned though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 2,4-6, 8, 12-15,and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Marlevi et al US (5572221) and in view of Schwartz et al US (6473609).

14. As per claim 2, Marlevi et al teach the invention as explained above. However, Marlevi et al does not teach explicitly wherein the selected WWW information is selected according to information related to a user of the mobile computer (device). Schwartz et al, in an analogous art, teach interactive two-way mobile communication devices that permit a user to interact with a network server providing hypermedia information through a data network system where www information is selected according to an information related to a user of a mobile device [Col. 15, lines 28-67 and Col. 16, lines 1-66. See also, col. 19, lines 18-67 and Col. 20, lines 1-31].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Marlevi et al with the system of Schwartz et al to have the advantage of allowing mobile devices to interact effectively with the Internet from different locations [Col. 2, lines 30-49].

15. As per claim 4, Schwartz et al teach the system wherein the mobile computer sends the message containing identification information for specifying one or more WWW information, at least at a time of network connection [Col. 15, lines 28-67 and Col. 16, lines 1-66. See also, col. 19, lines 18-67 and Col. 20, lines 1-31]; and
the management unit controls said one or more cache servers to cache WWW information selected according to the identification information contained in the message as the selected WWW information [col. 2, lines 50-67 and Col. 15, lines 28-67 and Col. 16, lines 1-66].

16. As per claim 5, Schwartz et al teach the system the system wherein the mobile computer sends the message containing a user ID of a user of the mobile computer [Col.7, lines 15-57]; and the management unit registers in advance user IDs of users of the mobile computers in correspondence to respective identification information for specifying one or more WWW information, and controls said one or more cache servers to cache said one or more

information specified by the identification information registered in correspondence to the user ID contained in the message as the selected WWW information [col. 2, lines 50-67 and Col. 15, lines 28-67 and Col. 16, lines 1-66].

17. As per Claim 6, Schwartz et al teach a system wherein the mobile computer sends the message containing a user ID of a user of the mobile computer [Col. 19, lines 18-48]; and the management unit registers in advance a correspondence between a user ID of each user of each mobile computer and one or more information provider IDs of those information providers who wish to provide services to said each user and a correspondence between each information provider ID of each information provider and one or more WWW information IDs of those WWW information which are to be provided by said each information provider, searches the information provider IDs registered in correspondence to the user ID contained in the message, searches the WWW information IDs registered in correspondence to each information provider ID found by a search, and controls said one or more cache servers to cache WWW information having the WWW information IDs found by a search as the selected WWW information [col. 7, lines 56-67 and Col. 8, lines 1-45 and Col. 11, lines 15-53. see also, Col.19, lines 18-62].

18. As per claim 8, Schwartz et al teach the system wherein the management unit maintains an update frequency information

indicating an update frequency of WWW information provided by each information provider, and controls said one or more cache servers to carry out a cache update processing with respect to the selected WWW information according to the update frequency information [Col. 1, lines 38-67 and Col. 16, lines 1-66].

19. As per claim 12, Marlevi et al teach a system wherein information providers are classified into a plurality of classes, and said one or more cache servers and the selected WWW information are specified by the information provider in accordance with a predetermined range of numbers permitted for a class to which the information provider belongs [Col. 15, lines 20-67 and Col. 16, lines 1-46].

20. As per claim 13, Schwartz et al teach a system wherein the management unit maintains an update frequency information indicating an update frequency of WWW information provided by each information provider, and controls said one or more cache servers to carry out a cache update processing with respect to the selected WWW information according to the update frequency information [Col. 1, lines 38-67 and Col. 16, lines 1-66].

21. As per claim 14, Schwartz et al teach a system wherein the management unit changes the selected WWW information cached in said one or more cache servers according to at least one of a likelihood by which each WWW information is expected to be

accessed and a priority level determined for each WWW information, when a cache state of any one of said one or more cache servers reaches to a prescribed criterion [Col. 8, lines 46-67 and Col. 9, lines 1-66].

22. As per claim 15, Schwartz et al teach a system wherein the wireless network comprises a first network for providing data transmission at relatively low transfer rate, and a second network for providing data transmission at relatively high transfer rate at least in a downlink direction, and the management unit receives a message from the mobile computer via the first network, and the cache servers transfer the selected WWVW information to the mobile computer via the second network [Col. 5, lines 8-61].

23. As per claim 21, Schwartz et al teach a mobile computer device wherein the third unit notifies the message which also contains a bookmark information of a WWW browser operating on the mobile computer device, such that the selected WWW information is selected according to the bookmark information contained in the message [col. 20, lines 57-67 and Col. 21, lines 1-25].

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yasin M Barqadle whose telephone number is 703-305-5971. The examiner can normally be reached on 9:00 AM to 5:30 PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 703-305-9717. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7201 for regular communications and 703-305-5404 for After Final communications.
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-304-3900.

YB

January 3, 2003

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